

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

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SIEMENS MEDICAL SOLUTIONS USA, INC.,

Plaintiff,

v.

SAINT-GOBAIN CERAMICS & PLASTICS, INC.,

Defendant.

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Civil Action No. 07-190 SLR

**SAINT-GOBAIN'S PROPOSED FINAL JURY INSTRUCTIONS**

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**1. INTRODUCTION**

Members of the jury, now it is time for me to instruct you about the law that you must follow in deciding this case. I will start by explaining your duties and the general rules that apply in every civil case. I will explain some rules that you must use in evaluating particular testimony and evidence. I will explain the positions of the parties and the law you will apply in this case. Last, I will explain the rules that you must follow during your deliberations in the jury room, and the possible verdicts that you may return. Please listen very carefully to everything I say.

You will have a written copy of these instructions with you in the jury room for your reference during your deliberations. You will also have a verdict form, which will list the interrogatories, or questions, that you must answer to decide this case.

## **2. JURORS' DUTIES**

You have two main duties as jurors. The first one is to decide what the facts are, based on the evidence that you saw and heard here in court. Deciding what the facts are is your job, not mine, and nothing that I have said or done during this trial was meant to influence your decision about the facts in any way. I have no opinion as to what your verdict should be.

Your second duty is to accept the law that I give you, apply it to the facts, and decide, under the appropriate burden of proof, which party should prevail on each of the issues presented. It is my job to instruct you about the law. You are bound by the oath that you took at the beginning of the trial to follow the instructions that I give you, even if you personally disagree with them. This includes the instructions that I gave you before and during the trial, and these instructions. All the instructions are important, and you should consider them together as a whole. You should not focus only on one instruction or give greater emphasis to one instruction over another. You should consider all the instructions I give you as a whole.

You are sworn to perform these duties fairly. Do not let any bias, sympathy or prejudice that you may feel toward one side or the other influence your decision in any way. You should decide this case on the evidence and the law I give you, and on nothing else.

### 3. BURDENS OF PROOF

This is a civil case in which Siemens is alleging that Saint-Gobain is infringing Siemens' U.S. Patent No. 4,958,080 ("the '080 patent"). Siemens has the burden of proving patent infringement by what is called a preponderance of the evidence. That means that Siemens has to produce evidence which, when considered in light of all of the facts, leads you to believe that what Siemens asserts is more likely true than not. To put it differently, if you were to put the evidence of Siemens and Saint-Gobain on opposite sides of a scale, the evidence supporting Siemens' claims would have to make the scales tip somewhat on Siemens' side for your verdict to be for Siemens.

If Siemens fails to meet its burden with respect to any claim of infringement, your verdict must be for Saint-Gobain on that patent claim.

Siemens is also alleging that Saint-Gobain's infringement was willful. Siemens has the burden of proving willful infringement by clear and convincing evidence. Clear and convincing evidence is evidence is a higher burden of proof than the standard of a preponderance of evidence. "Clear and convincing" evidence is such evidence that produces an abiding conviction that the truth of a factual contention is highly probable. Proof by clear and convincing evidence, therefore, is a higher burden than proof by a preponderance of the evidence. If Siemens fails to meet its burden for its willfulness claim, then your verdict must be for Saint-Gobain on that claim.

This standard of proof, clear and convincing, also applies to Siemens' claim that Saint-Gobain's LYSO crystal is the legal equivalent of the claimed LSO crystal

You may have heard of the “beyond a reasonable doubt” burden of proof from criminal cases. That requirement is the highest burden of proof. It does not apply to civil cases and, therefore, you should put it out of your mind.

#### **4. EVIDENCE DEFINED**

You must make your decision based only on the evidence that you saw and heard here in the courtroom. Do not let rumors, suspicions, or anything else that you may have seen or heard outside of court influence your decision in any way. The evidence in this case includes only what the witnesses said while they were testifying under oath (including deposition testimony that has been played or read to you), the exhibits that I allowed into evidence, and any facts that the parties agreed to by stipulation.

Nothing else is evidence. The lawyers' statements and arguments are not evidence. Their questions and objections are not evidence. My legal rulings are not evidence. None of my comments or questions are evidence. Any notes taken by any juror are not evidence. The fact that I sustain or overrule an objection is not evidence.

Certain charts and graphics may have been used to illustrate testimony from witnesses. Unless I have specifically admitted them into evidence, those charts and graphics are not themselves evidence even if they refer to or identify evidence. Only documents, admitted into evidence.

During the trial I may not have let you hear the answers to some of the questions that the lawyers asked. I also may have ruled that you could not see some of the exhibits that the lawyers wanted you to see. You must completely ignore all of these things. Do not even think about them. Do not speculate about what a witness might have said or what an exhibit might have shown. If these things happened, they are not evidence, and you are bound by your oath not to let them influence your decision in any way.

Make your decision based only on the evidence, as I have defined it here, and nothing else.



**5. CONSIDERATION OF EVIDENCE**

You should use your common sense in weighing the evidence. Consider it in light of your everyday experience with people and events, and give it whatever weight you believe it deserves. If your experience tells you that certain evidence reasonably leads to a conclusion, you are free to reach that conclusion, if it is in accordance with the instructions as to the law that I give you here..

## **6. DIRECT AND CIRCUMSTANTIAL EVIDENCE**

Some of you may have heard the terms “direct evidence” and “circumstantial evidence.” Although there is a difference between the definitions of direct and circumstantial evidence, both forms are evidence of equal dignity and respect.

Direct evidence refers to evidence that directly tends to prove a fact. As an example, if a witness testifies that she saw it raining, that is direct evidence that it was then raining.

Circumstantial evidence is simply a chain of circumstances that proves a fact indirectly. For example, if someone walked into the courtroom wearing a raincoat covered with drops of water and carrying a wet umbrella, that would be circumstantial evidence from which you could conclude that it was raining. Both kinds of evidence would tend to show that it was raining; one directly, the other indirectly.

It is your job to decide how much weight to give the direct and circumstantial evidence. The law makes no distinction between the weights that you should give to either one, nor does it say that either kind of evidence is better evidence than the other. You should consider all the evidence, both direct and circumstantial, and give it whatever weight you believe it deserves.

**7. CREDIBILITY OF WITNESSES**

You, the jurors, as the sole judges of the facts, are also the sole judges of credibility, or the believability, of the witnesses you have seen during the trial and the weight their testimony deserves.

You should carefully consider all the testimony each witness has given and every matter of evidence that tends to show whether he or she is worthy of belief. Consider each witness's intelligence, motive, and state of mind, as well as his or her demeanor while on the stand. Consider the witness's ability to observe the matters as to which he or she has testified and whether he or she impresses you as having an accurate recollection of these matters. Consider also any relation each witness may bear to each side of the case, the manner in which each witness might be affected by the verdict, the interest any witness may have in the verdict, and the extent to which, if at all, each witness is either supported or contradicted by other evidence in the case.

Discrepancies in the testimony of different witnesses may, or may not, cause you to discredit such testimony. Two or more persons witnessing an incident or transaction may see or hear it differently. Likewise, in determining the weight to give to the testimony of a witness, you should ask yourself whether there was evidence tending to prove that the witness testified falsely about some important fact, or whether there was evidence that at some other time the witness said or did something, or failed to say or do something, that was different, or inconsistent, from the testimony that he or she gave during the trial. It is for you to decide whether a false statement or a prior inconsistent statement by a witness discredits the witness's testimony.

You should remember that a simple mistake by a witness does not mean that the witness was not telling the truth. People may tend to forget some things or remember other things inaccurately. If a witness has made a misstatement, you must consider whether it was simply an innocent lapse of memory or an intentional falsehood, and that may depend upon whether it concerns an important fact or an unimportant detail. You should use your common sense and common experience to make this judgment.

**8. IMPEACHMENT BY PRIOR INCONSISTENT STATEMENT**

The credibility of a witness may be challenged by introducing evidence that on some former occasion the witness made a statement apparently inconsistent with the testimony of the witness in this case on a matter material to the issues. Evidence of this kind may be considered by you in connection with all the other facts and circumstances in evidence in deciding the weight to be given to the testimony of that witness. Once again, this is for you, as the sole judges of the facts, to determine in the exercise of your best commonsense judgment, based upon your experience in life.

**9. NUMBER OF WITNESSES**

It is not the quantity of witnesses or evidence that matters. I instruct you that you should not make any decisions based only on the number of witnesses who testified or the number of exhibits entered into evidence. What is more important is how believable the witnesses were, and how much weight you think their testimony deserves. Concentrate on that, not the number of witnesses.

## **10. EXPERT WITNESSES**

When knowledge of technical or financial subject matter might be helpful to the jury, a person who has special training or experience in that technical or financial field is permitted to state his or her opinion on those technical or financial matters - that person is called an expert witness. However, you are not required to accept that opinion of an expert just because the witness is qualified as an expert. As with any other witness, it is for you, as a juror, to judge the credentials and credibility of all witnesses, including expert witnesses and decide whether to rely upon his or her testimony.

You should consider each expert opinion received in evidence in this case, and give it such weight as you think it deserves. If you decide that the opinion of an expert witness is not based upon sufficient education and experience, or if you conclude that the reasons given in support of the opinion are not sound, or if you determine that the expert did not consider relevant information, or if you feel that the opinion is outweighed by other evidence, you may disregard the opinion in whole or in part.

## **11. DEPOSITION TESTIMONY**

During the trial, certain testimony was presented to you through depositions that were either read into evidence or played on videotape. This testimony is entitled to the same consideration you would give it had the witness personally appeared in court. It is the same as the testimony of a live witness. Statements made in a deposition are made under oath and are considered evidence that may be used to prove particular facts.

## **12. CORPORATE ENTITIES**

A corporation can only act through natural persons as its agents or employees. A corporation is legally responsible for acts or omissions of its agents or employees within the scope of their employment.

You may have seen deposition testimony from employees who were designated by their corporate employers as “corporate representatives” to testify on behalf of the corporation on certain topics. Those witnesses were selected by their employer and were required to provide information known or reasonably available to the corporation. Statements in a deposition made by such a corporate representative are considered the statements of the corporation.

**13. THE PARTIES AND THEIR CONTENTIONS**

I will now review for you the parties in this action, and the positions of the parties that you will have to consider in reaching your verdict.

**14. THE PARTIES**

The plaintiff in this case is Siemens Medical Solutions USA, Incorporated. The defendant is Saint-Gobain Ceramics & Plastics, Incorporated. I will refer to the plaintiff as “Siemens.” I will refer to the defendant as “Saint-Gobain.”

## 15. THE PARTIES' CONTENTIONS

Siemens contends that Saint-Gobain contributes to the infringement of Siemens' '080 patent by supplying LYSO crystals to companies like Philips who incorporate the crystals into positron emission tomography ("PET") scanners. Siemens also contends that Saint-Gobain induces its customers, such as Philips, to infringe Siemens' '080 patent. Siemens contends that Saint-Gobain's customers, such as Philips, directly infringe the '080 patent by making, using, offering to sell, selling, and/or importing PET scanners incorporating Saint-Gobain's LYSO crystals. Saint-Gobain does not dispute that PET scanners incorporating Saint-Gobain's LYSO crystals literally satisfy all the limitations of the '080 patent claims except the scintillator limitation, and Siemens contends that Saint-Gobain's LYSO crystal satisfies that scintillator limitation of the '080 patent claims under a legal doctrine known as the doctrine of equivalents. Saint-Gobain denies that contention.

When a patent holder believes that a patent has been infringed, the patent holder - in this case Siemens -- may sue to collect money damages to compensate it for the infringement. Siemens contends that it is entitled to an amount of damages determined under a lost profits theory, returning Siemens to the same position it would have been if not for Saint-Gobain's alleged infringement. The Patent Code provides that successful proof of infringement of a patent entitles the patent holder to collect damages, no less than a "reasonable royalty" for the proven infringer's infringement. Siemens also contends that Saint-Gobain's infringement of the '080 patent is knowing and willful as that term is defined in the law, as I will instruct you..

Saint-Gobain contends that its LYSO crystal does not meet the scintillator limitation of the '080 patent claims under the doctrine of equivalents. Saint-Gobain also contends that, as a result, Siemens is not entitled to any damages. Saint-Gobain also contends

that lost profit damages are not available to Siemens even if infringement is found and that ,  
Siemens is entitled to no more than a reasonable royalty.

**16. THE PATENT LAWS**

At the beginning of the trial, I gave you some general information about patents and the patent system and a brief overview of the patent laws relevant to this case. I will now give you more detailed instructions about the patent laws that specifically relate to this case. If you would like to review my instructions at any time during your deliberations, they will be available to you in the jury room.

**17. THE CLAIMS OF THE PATENTS IN SUIT**

As you heard at the beginning of the trial, the claims of a patent are the numbered sentences at the end of the patent. The claims describe the invention made by the inventor and describe what the patent owner owns and what the patent owner may prevent others from making, using or selling in the United States.

Claims are usually divided into parts, sometimes called “limitations,” or “elements.” For example, a claim that covers the invention of a table may claim the tabletop, four legs and the glue that secures the legs to the tabletop. The tabletop, legs and glue are each a separate limitation or element of the claim.

In this case, Siemens contends that Saint-Gobain infringes claims 1 and 2 of the ‘080 patent.

**18. CONSTRUCTION OF THE CLAIMS**

In deciding whether or not an accused product or method infringes a patent, the first step is to understand the meaning of the words used in the patent claims.

It is my job as a judge to determine what the patent claims mean and to instruct you about that meaning. You must accept the meanings I give you and use them when you decide whether or not the patent is infringed.

## **19. CLAIMS USING THE TERM “COMPRISING”**

The beginning, or preamble, portion of a claim often uses the word “comprising.” In the patent context, “comprising” means “including” or “containing.” A product claim that uses the word “comprising” is not limited to products that have only the limitations recited in the claim, but can also cover products that have additional ingredients, parts, or features than what is stated in the claims.

Let’s take our example of the claim that covers a table. If the claim recites a table “comprising” a tabletop, legs and glue, the claim will cover any table that contains these structures, even if the table also contains other structures, such as a leaf or wheels on the legs.

## 20. LIMITATIONS OF THE CLAIMS AT ISSUE

To decide the question of infringement, you must first understand what the claims of the patent cover. It is my duty under the law to define what the patent claims mean.

You must ignore any different interpretation given to these terms by the witnesses or attorneys.

If I have not provided a specific definition for a given term, you are to use the ordinary meaning of that term. I instruct you that the following claim limitations have the following definitions for purposes of the '080 Patent:

**Gamma Ray:** Radiation having wavelengths of between approximately 0.00001 and 0.01 nanometers.

**X-Ray:** Radiation having wavelengths of between approximately 0.01 and 100 nanometers.

**Scintillator:** A transparent single crystal that responds to radiation by emitting observable light.

**Transparent:** Permits passage of observable light.

**Single Crystal:** Any solid object in which an orderly three-dimensional arrangement of the atoms, ions, or molecules is substantially repeated.

**Photodetector:** A device that produces an electrical signal in response to received light.

**Optically Coupled:** Connected, either directly or indirectly, through a suitable light path.

## 21. PATENT INFRINGEMENT – GENERALLY

Any person or business entity that makes, uses, offers to sell, or sells a patented invention in the United States or imports the invention into the United States without the patent owner's permission infringes the patent. A patent owner has the right to stop others from infringing the patent.

To succeed on its claim of patent infringement, Siemens must prove that someone directly infringed the '080 patent. There are two ways that direct infringement can be found. The first is when each limitation of a claim is identically found in the accused product. That is called literal infringement because the accused product contains literally every element of the claim. Siemens does not contend that PET scanners incorporating Saint-Gobain's LYSO crystals literally infringe the claims of the '080 patent.

The second way that direct infringement can be found is called infringement under the doctrine of equivalents. Siemens contends that Saint-Gobain's LYSO crystal is "equivalent" as the law defines that term to the scintillator limitation in the '080 patent claim. Saint-Gobain does not dispute that Philips' PET scanners incorporating Saint-Gobain's LYSO scintillator literally meet all of the limitations in the claims of the '080 patent except one: the scintillator limitation. What the parties do dispute and what you must decide is whether that limitation is met under the doctrine of equivalents. I will explain more about how to determine whether a PET scanner incorporating Saint-Gobain's LYSO crystals infringes the '080 patent under the doctrine of equivalents in a few minutes.

A patent may be infringed directly or indirectly. Direct infringement results if the accused product is directly covered by at least one claim of the patent. Someone can directly infringe a patent without knowing that what they are doing is an infringement of the patent.

They also may directly infringe a patent even though they believe in good faith that what they are doing is not an infringement of any patent. Siemens does not contend that Saint-Gobain is a direct infringer of the '080 patent. Indirect infringement results if the defendant induces another to infringe a patent or contributes to the infringement of a patent by another. In this case, Siemens contends that Saint-Gobain is an indirect infringer through both means.

Specifically, Siemens contends that Philips' PET scanners incorporating Saint-Gobain's LYSO crystals directly infringe the '080 patent, and that by supplying LYSO, Saint-Gobain is liable for contributory infringement and inducing infringement. I will explain what is required for contributory infringement and for inducement of infringement in a moment.

## **INFRINGEMENT UNDER THE DOCTRINE OF EQUIVALENTS**

I have previously described to you literal infringement of a patent. Here, Siemens does not argue that Saint-Gobain's LYSO crystal, when incorporated into the PET/CT Scanner manufactured and sold by an entity, such as Philips, literally infringes the '080 Patent. Instead, Siemens accuses Saint-Gobain of infringement under what is called the Doctrine of Equivalents. Under the doctrine of equivalents, a product can infringe an asserted patent claim if it includes parts that are identical or "equivalent:" as that term is used in patent law, to all the requirements of any one claim. There is no difference in patent law for liability purposes between so-called literal infringement and infringement by the doctrine of equivalents.

The doctrine of equivalents must be applied to the individual limitations of the claims that are not met literally, not to the invention as a whole. You may find Saint-Gobain's LYSO scintillator to be equivalent, as that term is used in patent law, to the claimed LSO scintillator if a person of ordinary skill in the field would have found that there is no insubstantial difference between Saint-Gobain's LYSO scintillation crystal and the LSO scintillator as of the time of the alleged infringement. One test the law has devised to help decide whether the difference between the LSO scintillator and Saint-Gobain's LYSO scintillator is not insubstantial is to consider whether, as of the time of the alleged infringement, the LYSO scintillator performed substantially the same function, in substantially the same way, to achieve substantially the same result as the LSO scintillator in the patent claim. In deciding whether any difference between a claim requirement and the product is insubstantial, you may consider whether, at the time of the alleged infringement, persons of ordinary skill in the field would have known that a LYSO crystal scintillator was known to be interchangeable with the claimed LSO scintillator. The known interchangeability between the claim requirement and the part of the product is not

necessary to find infringement under the doctrine of equivalents, but it may be a factor to consider.

Another factor to consider to determine whether the LYSO crystal is a legal equivalent to the claimed LSO crystal is whether the LYSO was novel and inventive at the time of the alleged infringement. In determining whether the LYSO crystal constitutes a legal equivalent to the claimed LSO crystal, you may accordingly consider whether the LYSO crystal produced by Saint-Gobain and sold to Philips is the subject of a valid United States Patent. A product cannot be both the subject of a valid United States patent and at the same time be equivalent to a claimed product.

In this case, Saint-Gobain does not contest that its LYSO crystal performs substantially the same function as the LSO scintillator limitation in the '080 patent claims: to detect gamma and x-rays; neither does Saint-Gobain contest that Saint-Gobain's LYSO crystal is a scintillation crystal that emits photons when excited by the presence of either gamma or x-rays, as does the claimed LSO scintillation crystal. Saint-Gobain disputes the conclusion that its LYSO crystal scintillator represents an insubstantial difference over the LSO crystal, claimed in the '080 Patent. Part of Saint-Gobain's argument is that LYSO does not achieve substantially the same result as the LSO scintillator limitation in the '080 patent claims. It is for you to decide the issue whether Saint-Gobain's LYSO scintillation crystal constitutes a legal equivalent to the claimed LSO scintillation crystal of the '080 Patent.

If you find that Saint-Gobain's LYSO crystal has only insubstantial differences between the claim limitations and the corresponding elements in the accused product, you will may determine that Saint-Gobain's LYSO scintillator constitutes a legal equivalent to the claimed LSO scintillation crystal. If, however, you find that the claim limitation and the

corresponding element in the accused product do not have insubstantial differences, then you will have determined that the corresponding element in the accused product is not a legal equivalent to the claimed LSO scintillation crystal of the '080 Patent.

[Siemens bears the burden of proving the legal equivalence of the LYSO crystal to the claimed LSO crystal by the clear and convincing evidence standard about which I will instruct you later.]

## **22. INDIRECT INFRINGEMENT – GENERALLY**

As I mentioned earlier, a patent owner may also enforce the patent against someone who contributes to infringement by another or who induces another to infringe. In this suit, Siemens contends that Saint-Gobain indirectly infringes the '080 patent.

There are two types of indirect infringement that are at issue in this case. One type of indirect infringement is inducing infringement. The act of encouraging or inducing others to infringe a patent in the United States is called "inducing infringement." A second type of indirect infringement is contributory infringement. The act of contributing to the infringement in the United States of others by, for example, supplying them with components used in the patented invention is called "contributory infringement." I will explain these two types of indirect infringement in subsequent instructions.

### **23. INDUCING PATENT INFRINGEMENT**

Siemens asserts that Saint-Gobain has actively induced another to infringe the patent.

For you to find that Saint-Gobain induced another, such as Philips to infringe the '080 patent, Siemens must prove four things by a preponderance of the evidence. That is, Siemens must prove that these things are more likely than not true:

1. Saint-Gobain intended to encourage, instruct, or aid and abet a person in the act(s) which infringe the patent. Such encouragement, instruction, or aid may come through direct communications, such as phone calls, meetings, or emails, or the encouragement, instruction, or aid may be indirect, such as by providing advertisements, instruction manuals, or labels.

2. At the time of the encouragement, instruction or aid, Saint-Gobain knew of the patent. Saint-Gobain concedes that it knew of the '080 patent.

3. Saint-Gobain knew or should have known that its encouragement, instruction, or aid to the person or entity, such as Philips, would cause the direct infringement of the patent. Knowledge that the encouragement, instruction or aid would cause direct infringement is a necessary element of inducing infringement.

4. The person or entity, such as Philips, directly infringed the patent. It is not necessary to show that Saint-Gobain has directly infringed as long as you find that someone has directly infringed.

If these things are proven by either direct or circumstantial evidence, you must find that Saint-Gobain induced patent infringement.

## 24. CONTRIBUTORY INFRINGEMENT

Contributory infringement can occur when a supplier provides a part, or a component, to another for use in a product or machine that infringes the patent. In order for there to be contributory infringement, the person or entity who received the component must infringe the patent. It is not necessary to show that Saint-Gobain has directly infringed as long as you find that someone has directly infringed.

For you to find that Saint-Gobain contributorily infringed the '080 patent, Siemens must prove four things by a preponderance of the evidence. That is, Siemens must prove that these things are more likely than not true:

1. Saint-Gobain knew of the '080 patent before it sold its LYSO crystals to Philips;
2. Saint-Gobain's LYSO crystal must be especially made or adapted for use in a manner that infringes the '080 patent, and the crystal must have no substantial uses that do not infringe the '080 patent. Saint-Gobain does not contest that its LYSO crystal is especially made and adapted for use in gamma or x-ray detector such as a PET scanner, and Saint-Gobain does not contend that its crystal has substantial non-infringing uses;
3. Saint-Gobain knew that the its 10%Y LYSO crystal was especially made for use in a gamma or x-ray detector such as a PET scanner; and
4. Saint-Gobain's LYSO crystal was actually incorporated into a product that you find infringes the patent. If you find that Saint-Gobain's LYSO crystal is equivalent to the scintillator limitation of the '080 patent claims, then Saint-Gobain does not contest that Philips PET scanners incorporating Saint-Gobain's crystal directly infringe the '080 patent.

Each of these things may be proven by direct or circumstantial evidence.



## **25. WILLFUL INFRINGEMENT**

If you find, on the basis of the evidence and the law as I have explained it, that Saint-Gobain infringed at least one claim of the '080 patent, you must then decide whether or not that infringement was willful. The fact that you may have determined that Saint-Gobain infringed the '080 patent does not necessarily mean that the infringement was willful. Willfulness requires you to determine whether Saint-Gobain's actions before suit was filed were objectively reckless with regard to the '080 patent.

The issue of willful infringement is not relevant to your decision of whether Saint-Gobain infringed the '080 patent. It is for me to decide what, if anything, is to be done with your finding of willful infringement, if that is your decision.

To establish willful infringement, Siemens must prove by clear and convincing evidence the following.

1. Saint-Gobain was aware of the '080 patent. Saint-Gobain admits that it was aware of the '080 patent prior to the lawsuit.

2. Saint-Gobain's actions before this suit was filed on April 3, 2007 constituted infringement of the '080 patent, and that Saint-Gobain took those actions despite an objectively high likelihood that they constituted infringement of the '080 patent. Saint-Gobain's subjective state of mind is not relevant to this objective inquiry.

3. Saint-Gobain knew or should have known that its actions taken before April 3, 2007 created an objectively high risk of infringement. Saint-Gobain's state of mind is relevant to this inquiry. If you find that Siemens has proved all three of these elements, then you must find that Saint-Gobain's infringement of the '080 patent was willful.

In making the determination as to willfulness, you must consider the totality of the circumstances related to Saint-Gobain's consideration of the '080. The totality of the circumstances comprises a number of factors, which include, but are not limited to whether Saint-Gobain intentionally copied the scintillator component of the claimed invention or a product covered by Siemens' patent, whether Saint-Gobain relied on competent legal advice, and whether Saint-Gobain presented a substantial defense to infringement.

## **26. DAMAGES**

I have now instructed you on the law governing Siemens' claims of patent infringement. We turn now to damages. If, after considering all of the evidence and the law as I have stated it, you find that at least one claim of the '080 patent is infringed by Saint-Gobain, then you must determine the amount of damages to be awarded to Siemens to compensate for that infringement. If, on the other hand, you find that there has been no infringement of any claim of the '080 patent, then Siemens is not entitled to any damages and you should not make any findings about damages.

The fact that I am instructing you about damages does not mean that Siemens is or is not entitled to recover damages. I am expressing no opinion one way or the other. These instructions are only to guide you in case you find that Saint-Gobain has infringed a claim of the '080 patent.

**27. COMPENSATORY DAMAGES IN GENERAL**

The patent laws provide that, in the case of infringement of a patent claim, the owner of a patent shall be awarded damages adequate to compensate for the infringement. In other words, damages are compensation for losses suffered by the patent owner as a result of the infringement. In determining damages, you must decide how much financial harm the patent owner has suffered by reason of the infringement, which cannot be less than a reasonable royalty for the sales found to be infringing.

Your damage award should put Siemens into the financial position it would have been had the infringement not occurred; but in no event may the damage award be less than what a reasonable royalty would be for the use made of the invention. You may not add anything to the amount to punish or to set an example.

**28. DAMAGES – BURDEN OF PROOF**

Siemens has the burden of proving damages by the same “preponderance of the evidence” standard I discussed earlier. Siemens is entitled to damages that it has proved with “reasonable certainty.” Reasonable certainty does not require Siemens to prove its damages with absolute or mathematical certainty. Mere difficulty in ascertaining an exact damages dollar amount does not prevent Siemens from collecting damages, and any doubts regarding the computation of the amount of damages should be resolved against Saint-Gobain and in favor of Siemens. However, Siemens is not entitled to speculative damages. That is, you should not award damages for losses which, although possible, are wholly remote or left to conjecture or guess. If you have any doubts about the reasonable certainty of damages, these doubts should be resolved against Saint-Gobain.

**29. DAMAGES – INDIRECT INFRINGEMENT**

Anyone who induces or contributes to infringement is liable in the same manner and to the same extent as a direct infringer. Therefore, Siemens may seek the same relief from Saint-Gobain for indirect infringement as it would seek from the direct infringers, and the damages assessed for the indirect infringement will be the same as damages that would be assessed for that direct infringement.

**30. PATENT EXPIRATION HAS NO EFFECT ON DAMAGES**

A patent owner may seek damages for infringing conduct that occurs before the expiration of the patent. With respect to such conduct, the right to recover damages is in no way affected by expiration of the patent, except that the patent holder cannot collect damages for a time period after the patent expires.

### **31. DAMAGES – LOST PROFITS**

One of the methods permitted by law for computing damages in patent cases is called “lost profits” damages. This is the primary method that Siemens argues should be the appropriate measure by which to calculate the damages it claims.

Simply stated, lost profit damages are the profits Siemens says that it would have earned “but for” Saint-Gobain’s infringement. They are not the profits Saint-Gobain actually made, if any.

Siemens claims that it lost profits because Saint-Gobain’s infringement took away sales of PET scanners that Siemens would have made if Saint-Gobain had not sold its infringing LYSO crystal. Saint-Gobain denies that.

To prove that it lost sales, Siemens must prove that it is more probable than not that Philips’ PET scanner customers would have purchased PET scanners and related goods and services from Siemens if Philips had not sold its allegedly infringing PET scanners incorporating Saint-Gobain’s LYSO crystal. This test is often called the “but for” test: that is, Siemens must show that “but for” the infringement, it would have made the sales and earned the profits that it claims it lost. To apply the “but for” test, you must imagine the marketplace as it would have existed if the infringement had not occurred and consider what would have happened. In other words, you should determine what Philips’ customers would have done if the infringement had not occurred.

To recover damages for lost sales, a patent owner, such as Siemens, must generally show:

1. That there was demand for the patented PET scanners;

2. That there are no noninfringing substitutes that would be acceptable to customers for the infringing PET scanners;

3. That Siemens had the manufacturing and marketing capability to meet the demand;

4. The amount of profit that Siemens would have made.

In situations where there are only two suppliers in the market, the first two of those factors collapse. In such circumstances, to prove lost profits under the “two-supplier market” test, Siemens must show:

1. That the relevant market contains only two suppliers;

2. That Siemens had the manufacturing and marketing capability to make the sales that were diverted to Philips; and

3. The amount of profit Siemens would have made on those sales.

These tests do not apply if you find that there are more than two competitors in the marketplace.

**32. LOST PROFITS – ACCEPTABLE NONINFRINGEMENT SUBSTITUTES**

Saint-Gobain claims that Siemens cannot prove it would have made the sale to Philips' customers because it contends there were available noninfringing substitutes. An acceptable non-infringing substitute must be a product that does not infringe the patent. To be a noninfringing substitute, a product must also be both (1) available in the market, and (2) acceptable to the market. In determining whether Siemens lost sales due to the infringement, you must consider whether or not, if Philips were not selling PET scanners incorporating LYSO with , some or all of the people who bought from Philips would have bought a different, noninfringing product from Philips or from somebody else, rather than buy the patented Biograph PET scanner from Siemens.

In order to assess whether there is an absence of acceptable non-infringing substitutes, you must consider whether non-infringing substitutes existed that were acceptable to the specific purchasers of the infringing products, not "purchasers" generally. The test is whether purchasers of the infringing product were motivated to make their purchase by features of the infringing product that were attributable to the claimed invention. If so, non-infringing products without those features would not be "acceptable non-infringing substitutes," even if they otherwise competed in the marketplace with the patented and the infringing products. It is relevant for you to consider, for example, to what other companies Siemens has identified as companies to whom it lost sales for the Biograph product.

**33. AMOUNT OF LOST PROFITS**

If Siemens has proved that it lost profits due to the infringement, then you are to determine the amount of profits that Siemens lost. As I have already instructed you, Siemens must prove the amount of its lost profits to a reasonable probability, but absolute certainty is not required. The amount of lost profits damages, however, should not include amounts that are merely speculation. All doubts resulting from the infringer's failure to keep proper records are to be resolved in favor of Siemens. Any incorrectness or confusion in the infringer's records should be held against Saint-Gobain, not Siemens.

### **34. DAMAGES – REASONABLE ROYALTY**

If you find that Saint-Gobain has infringed the '080 patent, but that Siemens has not shown that it is entitled to recover its lost profits on all or some portion of the infringing sales, then you must award Siemens no less than a reasonable royalty to compensate for any portion of Saint-Gobain's infringing sales for which you have not awarded lost profits. The patent law specifically provides that the amount of damages that Saint-Gobain must pay Siemens for infringing Siemens' patent may not be less than a reasonable royalty for the use that Saint-Gobain made of Siemens' invention. A reasonable royalty is not necessarily the actual measure of damages, but is merely the floor below which damages should not fall. Siemens is entitled to a reasonable royalty for all infringing sales for which it is not entitled to lost profits damages.

A reasonable royalty in this case is the amount of money that represents the value of the claimed inventions to the parties and represents fair compensation for use of the claimed invention. One of the factors in determining the value of the claimed invention is the royalty that would be agreed to in a hypothetical arms-length negotiation between Siemens and Saint-Gobain, with both operating under the assumption that the negotiated patent is valid and is being infringed, i.e., that absent the "reasonable royalty" payment, Saint-Gobain would respect the patent by not selling infringing scintillator crystals.

In determining a reasonable royalty, you should place yourself at the time just before Saint-Gobain's first sale of LYSO crystals, the period of time during which the hypothetical negotiation would have occurred. In the hypothetical negotiation, you must assume that the person negotiating on behalf of Saint-Gobain, who was willing to take a license, would have known that Siemens' patent was valid, was enforceable and was infringed. You should also

assume that both Siemens and Saint-Gobain knew all pertinent information at the time of the hypothetical negotiation.

Having that in mind, you may consider any relevant fact in determining the reasonable royalty for Saint-Gobain's use of the patented invention, including the opinion testimony of experts.

**35. FACTORS FOR DETERMINING A REASONABLE ROYALTY**

In determining the value of a reasonable royalty, some of the factors that you may consider are:

1. The royalties received by Siemens for licensing others under the '080 patent;
2. The rates paid by Saint-Gobain for the use of other patents comparable to the '080 patent;
3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory;
4. Whether Siemens had an established policy and marketing program to maintain its patent exclusivity by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that exclusivity;
5. The commercial relationship between Siemens and Saint-Gobain, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventors or promoters;
6. The effect of selling the patented product in promoting sales of other products of Saint-Gobain; the existing value of the invention to Siemens as a generator of sales of its non-patented items; and the extent of such collateral sales;
7. The duration of the '080 patent and the term of the hypothetical license to Saint-Gobain;
8. The established profitability of the product made under the patent, its commercial success, and its current popularity;

9. The utility and advantages of the patented invention over the old modes or devices, if any, that had been used for working out similar results;

10. The nature of the patented invention, the character of the commercial embodiment of it as owned and produced by Siemens, and the benefits to those who have used the invention;

11. The extent to which Saint-Gobain has made use of the invention, and any evidence probative of the value of that use;

12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions;

13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, business risks, or significant features or improvements added by Saint-Gobain;

14. The opinion testimony of qualified experts; and

15. Any other economic factor that a normally prudent businessperson would, under similar circumstances, take into consideration in negotiating the hypothetical license.

**36. DELIBERATION AND VERDICT**

Let me finish up by explaining some things about your deliberations in the jury room, and your possible verdicts.

Once you start deliberating, do not talk to the jury officer, or to me, or to anyone else except each other about the case. If you have any questions or messages, you must write them down on a piece of paper, sign them, and then give them to the jury officer. The officer will give them to me, and I will respond as soon as I can. I will have to talk to the lawyers about what you have asked, so it may take me some time to get back to you. Any questions or messages normally should be sent to me through your foreperson, who by custom of this Court is the juror seated in the first seat, first row.

One more caution about any messages you may send to the court. Do not ever write down or tell anyone how you stand on your votes. For example, do not write down or tell anyone that you are split 4-4, or 5-3, or whatever your vote happens to be. That should stay secret until you are finished.

**37. UNANIMOUS VERDICT**

Your verdict must represent the considered judgment of each juror. In order for you as a jury to return a verdict, it is necessary that each juror agree to the verdict. Your verdict must be unanimous.

It is your duty, as jurors, to consult with one another and to deliberate with a view towards reaching an agreement, if you can do so without violence to your individual judgment. Each of you must decide the case for yourself, but do so only after an impartial consideration of the evidence with your fellow jurors. In the course of your deliberations, do not hesitate to reexamine your own views and change your opinion, if convinced it is erroneous. But do not surrender your honest conviction as to the weight or effect of evidence solely because of the opinion of your fellow jurors, or for the purpose of returning a verdict. Remember at all times that you are judges - judges of the facts. Your sole interest is to seek the truth from the evidence in the case.

A form of verdict has been prepared for you. The verdict form asks you a series of questions about Siemens' claims of infringement. Unless you are directed otherwise in the form of the verdict, you must answer all of the questions posed, and you all must agree on each answer. When you have reached a unanimous agreement as to your verdict, you will return your verdict to the courtroom deputy.

It is proper to add the caution that nothing said in these instructions and nothing in the form of verdict is meant to suggest or convey in any way or manner what verdict I think you should find. What the verdict shall be is the sole and exclusive duty and responsibility of the jury.

**38. DUTY TO DELIBERATE**

Now that all the evidence is in and the arguments are completed, you are free to talk about the case in the jury room. In fact, it is your duty to talk with each other about the evidence and to make every reasonable effort you can to reach a unanimous agreement. Talk with each other, listen carefully and respectfully to each other's views and keep an open mind as you listen to what your fellow jurors have to say.

Try your best to work out your differences. Do not hesitate to change your mind if you are convinced that other jurors are right and your original position was wrong. But do not ever change your mind just because other jurors see things differently, or just to get the case over with. In the end, your vote must be exactly that - your own vote. It is important for you to reach unanimous agreement, but only if you can do so honestly and in good conscience.

If any member of the jury took notes, let me remind you that notes are not entitled to any greater weight than the memory or impression of each juror as to what the testimony may have been. Whether you took notes or not, each of you must form and express your own opinion as to the facts of the case.

No one will be allowed to hear your discussions in the jury room, and no record will be made of what you say. So you should all feel free to speak your minds.

Listen carefully to what the other jurors have to say, and then decide for yourself.

We generally end our business day at 4:30 p.m. If we do not hear from you by 4:30, I will be sending you a note to see whether you are close enough to a verdict to want to deliberate after 4:30 or whether you are going to recess for the evening and resume your deliberations on the next business day. You will need to respond in writing to that question.

I am going to remind you now, if you go home this evening and resume your deliberations on the next business day, you are not to talk about the case among yourselves or with anyone else during the evening recess. You may talk about the case only while you are in the jury room and everyone on the jury is present.

So if you do go home this evening, keep that instruction in mind. Unless I hear from you that you have a different schedule in mind, I will expect you all to come back the next business day at 9:30. You are not to start deliberating until you are all present in the jury room and participating together.

Because the lawyers have to make themselves available to respond to questions or receive the verdict, I generally give them between 1:00 and 2:00 to step away from the phone. So whenever you are deliberating over the lunch hour, let me remind you, if you ask a question between 1:00 and 2:00, you probably will not get an answer right away because we are all going to be stepping away from our phones at that time.

**39. COURT HAS NO OPINION**

Let me finish up by repeating something that I said to you earlier. Nothing that I have said or done during this trial was meant to influence your decision in any way. You must decide the case yourselves based on the evidence presented.

**UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

**CERTIFICATE OF SERVICE**


I hereby certify that on August 27, 2008, I electronically filed the foregoing document with the Clerk of the Court using CM/ECF which will send notification of such filing to the following and which has also been served as noted:

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